

**Work Order ID 79941****\*79941\***

Page 1

February-07-12 3:08:10 PM

Item ID: D117-762-041

Accept

**\*N900040100\***Setup Start **\*NS1\***

Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 21/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

M.C. J

Date:

12/02/07

Tooling:

Date:

Run Start **\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D3492

C

D3582

Rev A

100

0.00

**\*100\***

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile &amp; type labels per PPP D117-762-041 CHG001

N/A

120

0.00

**\*120\***

BENDING MACHINE - SKIDTUBES

CNC Bend 1

Memo

0.00

CNC Delta 100 Bender

Bend tube as per program D3582 on CNC Bender and Dwg D3582. Folio 3,  
use bending aid DT9632  
2- cut fwd end of tube as per dwg

DC

12/02/12

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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**NOTE:** Date & initial all entries

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Setup Start

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Revision ID:

Stop

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Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00

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Required Date: 21/02/2012 Req'd Qty: 1.00

**\*1\***

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Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

130

0.00

**\*130\***

Skidtubes

Skidtubes

Skidtubes

Memo

0.00

1-Cut Aft end using DT8185

2-Deburr ends

3-Drill Aft Cap holes using DT8678 \*\*\* OPEN AFT CAP HOLE TO .187" \*\*\*

4-Locate DT 8973 from aft cap holes & Drill Ground wire hole on top of Tube.

5-Install 3/16 cleco in Ground wire hole ,then drill all X-Bolt holes using 3/16" drill.

6-Drill pilot holes for wearplates using DT8900

7-Open wearplate holes to Ø19/64" (0.297") as per Dwg D3582.

8- open ground wear holes to 0.391" as per section B-B

9-Open Aft Cap holes using .209" drill.

10-Drill pilot holes for section D-D and E-E. Holes must be laid out by hand. Mark out Center line and make sure that 6.65 and 5.906 measurements are respected. Double check before drilling, do not open holes to finish size.

SAO 12-3-13

12-04-12

1 CF 12-3-13

SAO 12-03-15

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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**\*79941\***

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**\*N900040100\***

Setup Start \*NS1\*

Stop \*NS2\*

**Start Date:** 07/02/2012 **Start Qty:** 1.00 **\*1\***

**Required Date:** 21/02/2012      **Req'd Qty:** 1.00      **\* 1 \***

**Reference:**

**Approvals:** \_\_\_\_\_ **Process Plan:** \_\_\_\_\_ **Date:** \_\_\_\_\_ **Tooling:** \_\_\_\_\_ **Date:** \_\_\_\_\_

Run Start \*NR1\*

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

140

0.00

**\*140\***

## Skidtubes

0.00

## Skidtubes

## Memo

0.00

## Skidtubes

1-Weld fwd cap D2964 per dwg D3582 and QSI 004

A/R AL ROD

Batch:

2-Grind flush

0.00

150

**\*150\***

0.00

QC

## Memo

## Quality Control

QC5- Inspect part completeness to step on W/O	0.00
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0.00

**\*160\***

0.00

QC

## Memo

## Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Revision ID:

Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 21/02/2012 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***

QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	Chemical Conversion Coat:per QSI005 4.1	0.00							
<b>*170*</b>									
HandFinish	Memo	0.00							
Hand Finishing									
180	QC3- Inspect Part Finish	0.00							
<b>*180*</b>									
QC	Memo	0.00							
Quality Control									

1 0 CF 12-3-15

(1) SAD 12-03-16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Setup Start **\*NS1\***

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Stop **\*NS2\***

Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00 **\*1\***

Cust Item ID:

Required Date: 21/02/2012 Req'd Qty: 1.00 **\*1\***

Customer:

Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Run Start **\*NR1\***  
Stop **\*NR2\***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

190

0.00

**\*190\***

Skidtubes

Skidtubes

Memo

0.00

1-Open X-Bolt holes to finish size as per Dwg D3582, all sections

2-Counter Sink X-BOLT holes as per Dwg D3582

3-Deburr and blow out chips from inside of tube, prep. tube for welding.

4-Bond web as per Dwg D3582 & QSI 015

A/R 241 Sike Flex Batch: M120813  
Exp Date: 2012-08-13

5-Weld x-bolt spacers(D2973) as per Dwg D3582 section B-B.

A/R AL ROD Batch: M120164 BE12-03-17

6-Grind welds flush

→ CF 12.3.19

200

QC10- Inspect visual per QSI004- ground welds

0.00

**\*200\***

QC

Memo

0.00

Quality Control

12.03.19

1  $\phi$

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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Stop

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Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 21/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

210

QC5- Inspect part completeness to step on W/O

0.00

**\*210\***

QC

Memo

0.00

Quality Control

*12-03-19*

215

Pressure Wash per QSI005 4.3

0.00

**\*215\***

HandFinish

Memo

0.00

Hand Finishing

Touch-up alodine as per QSI

*12-3-20*

220

White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum

0.00

**\*220\***

Powdercoat

Memo

0.00

Powder Coating

START TIME *10h45*  
OVEN TEMPERATURE: *320°F*  
FINISH TIME: *11h15*

*M120222*

*12/03/21*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*N900040100\***

Setup Start

**\*NS1\***

Revision ID:

Stop

**\*NS2\***

Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 21/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

230

QC3- Inspect Part Finish

0.00

**\*230\***

QC

Memo

0.00

Quality Control

*12/03/22*

250

HandFinishing

0.00

**\*250\***

HandFinish

Memo

0.00

Hand Finishing

1-Inspect for Foreign objects

2-Install Aft cap as per Dwg D3582, Detail "C"

A/R 241 Sika Flex

Batch:

Exp Date:

3-Install Wearplates as per Dwg D3582,

Note: Install Bolt and washer on Ground Wire inserts on top of tube see section D-D of dwg D3582

\*\*\*\*\*Do not install bolts where indicated on Dwg (Note #6)\*\*\*\*\*

A/R 241 Sika Flex

Batch:

Exp Date:

4-assemble o-ring as per dwg D3492 and apply o-ring lube

A/R 55-o-ring lube

batch:

5- Wing Walk as per Dwg D3582 and QSI 005 4.4

*12/03/22*

*119094*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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**\*79941\***

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**\*NS2\***

Item Name: Replacement Skidtube

Start Date: 07/02/2012 Start Qty: 1.00

**\*1\***

Cust Item ID:

Required Date: 21/02/2012 Req'd Qty: 1.00

**\*1\***

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

**\*NR1\***

QC:

Date:

SPC (Y/N):

Date:

Stop

**\*NR2\***

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

260

QC5- Inspect part completeness to step on W/O

0.00

**\*260\***

QC

Memo

0.00

Quality Control

270

Packaging

0.00

**\*270\***

Packaging

Memo

0.00

Packaging

Identify and pack for shipping as per PPP D117-762-041

Location:

PPP Rev:

280

QC21- Final Inspection - Work Order Release

0.00

**\*280\***

QC

Memo

0.00

Quality Control

5/12/13/24

PPP 79941

12/3/09

12/3/29

12-03-28

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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# Picklist Print

February-07-12 3:08:15 PM

Page 1

Work Order ID: 79941

\*79941\*

Parent Item: D117-762-041

\*D117-762-041\*

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A07.06.11New Issue EC  
IPP Rev:B 08-02-22 change to revA as per dwg DD verified by:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
D3492-11 *D3492-11* Plug		Manufactured	No			250	Each	26.0000	2	2			
				<u>Location</u>				<u>Loc Qty</u>					
				FP002				26					
				71863	✓			6					
				74732	✓			20					
D3492-13 *D3492-13* Plug		Manufactured	No			250	Each	26.0000	6	6			
				<u>Location</u>				<u>Loc Qty</u>					
				FP001				26					
				74034	✓			26					
D3492-9 *D3492-9* Plug		Manufactured	No			250	Each	13.0000	2	2			
				<u>Location</u>				<u>Loc Qty</u>					
				FP002				13					
				46694	✓			13					
D2962-150 *D2962-150* 3.540 Outer Tube, Extrud		Manufactured	No				Each	49.0000		1			
				<u>Location</u>				<u>Loc Qty</u>					
				HALL				49					
				59934	✓			49					

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**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
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**\*D117-762-041\***

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D2964

Manufactured No

140

Each

29.0000

1

1

**\*D2964\***

Cap

\*\*

BE 12/03/15

Location

Loc Qty

Loc Code

LG002

29

74719

29

D2971

Manufactured No

190

Each

34.0000

1

1

**\*D2971\***

Cross Bolt Spacer

\*\*

BE 12/03/17

Location

Loc Qty

Loc Code

LG001

34

74720

34

D3584-1

Manufactured No

190

Each

2.0000

1

1

**\*D3584-1\***

Web

\*\*

SAD 12-03-16

Location

Loc Qty

Loc Code

LG

2

75189

2

D2973

Manufactured No

190

Each

58.0000

2

2

**\*D2973\***

Cross Bolt Spacer

\*\*

BE 12-03-17

Location

Loc Qty

Loc Code

LG002

58

14636

58

D3662-3

Manufactured No

190

Each

1.0000

1

1

**\*D3662-3\***

Crossbolt Spacer

\*\*

BE 12/03/17

Location

Loc Qty

Loc Code

LG001

1

44456

1

February-07-12 3:08:15 PM

Shop Packet Print

Page 2

**Dart Aerospace Ltd**

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Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3662-1 Manufactured No

190 Each

25.0000 3 3

**\*D3662-1\***

Crossbolt Spacer

\*\*

BE 12/03/17

Location

Loc Qty

Loc Code

LG001

25

71799

1

71857

24

3

ALS4-1032-130

Purchased No

Each

1,823.000

36

**\*AI S4-1032-130\***

Insert

\*\*

36 M-L 12/03/22

Location

Loc Qty

Loc Code

ST280

744

119084

744

ST281

1079

119632

79

120410

1000

ALS4-428-165

Purchased No

Each

469.0000

2

**\*AI S4-428-165\***

Inserts

\*\*

M-L 12/03/22

Location

Loc Qty

Loc Code

FP002

469

114172

18

117769 ✓

451

2

D2965

Manufactured No

250 Each

22.0000 1 1

**\*D2965\***

Cap, 105 Skidtube

\*\*

M-L 12/03/22

Location

Loc Qty

Loc Code

FP002

22

71371 ✓

22

1

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

February-07-12 3:08:15 PM

Page 4

Work Order ID: 79941

\*79941\*

Parent Item: D117-762-041

\*D117-762-041\*

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3508-3 Manufactured No

250 Each

11.0000 1 1

\*D3508-3\*

Wearplate

\*\*

M-L 12/03/22

Location

Loc Qty

Loc Code

FP001

11

38527

1

76264 ✓

10

D3508-9 Manufactured No

250 Each

6.0000 1 1

\*D3508-9\*

Wearplate

\*\*

M-L 12/03/22

Location

Loc Qty

Loc Code

FP001

6

72203 ✓

6

D3558-3 Manufactured No

250 Each

11.0000 1 1

\*D3558-3\*

Gasket

\*\*

M-L 12/03/22

Location

Loc Qty

Loc Code

FP002

11

71651

1

75179 ✓

10

D3558-9 Manufactured No

250 Each

4.0000 1 1

\*D3558-9\*

Gasket

\*\*

M-L 12/03/22

Location

Loc Qty

Loc Code

FP002

4

71212 ✓

4

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

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Page 5

Work Order ID: 79941

\*79941\*

Parent Item: D117-762-041

\*D117-762-041\*

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

D3558-11 Manufactured No

250

Each

5.0000

1

1

\*D3558-11\*

Gasket

\*\*

M-12/03/22

Location

Loc Qty

Loc Code

FP002

5

72202 ✓

5

1

D3558-13 Manufactured No

250

Each

9.0000

1

1

\*D3558-13\*

Gasket

\*\*

M-12/03/22

Location

Loc Qty

Loc Code

FP002

9

59558 ✓

9

1

D3508-11 Manufactured No

250

Each

4.0000

1

1

\*D3508-11\*

Wearplate

\*\*

M-12/03/22

Location

Loc Qty

Loc Code

FP001

4

72011 ✓

4

1

D3508-13 Manufactured No

250

Each

11.0000

1

1

\*D3508-13\*

Wearplate

\*\*

M-12/03/22

Location

Loc Qty

Loc Code

FP001

11

71027 ✓

2

71794

9

1

AN960JD10L NAS1149D0332J Purchased No

250

Each

0.0000

2

2

\*AN960JD10L \*

Washer

\*\*

120644

2 M-12/03/22

\*

February-07-12 3:08:15 PM

Shop Packet Print

Page 5

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

February-07-12 3:08:15 PM

Page 6

Work Order ID: 79941

\*79941\*

Parent Item: D117-762-041

\*D117-762-041\*

Parent Item Name: Replacement Skidtube

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

AN3C4A

Purchased

No

250

Each

3,845.000

28

28

\*AN3C4A\*

BOLT

\*\*

120769

28 m-12/03/22

Location

Loc Qty

Loc Code

ST350

3845

117313

2

117688

5

117872

10

118112

16

118451

2

119749

310

120187

2000

120423

500

120521

1000

AN3C5A

Purchased

No

250

Each

1,336.000

2

2

\*AN3C5A\*

Bolt

\*\*

m-12/03/22

Location

Loc Qty

Loc Code

FP001

7

115835

7

ST350

1329

116419

28

117343

13

117764

7

117872

2

119127

252

119749

27

120423 ✓

1000

2

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Picklist Print

February-07-12 3:08:15 PM

Page 7

Work Order ID: 79941

Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

\*79941\*

\*D117-762-041\*

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

AN960JD416L NAS1149D0416J Purchased

No

250

Each

8.0000

2

2

\*AN960JD416I \*

Washer

Location

Loc Qty

Loc Code

FP002

8

110153

8

250

Each

0.0000

28

28

AN960C10L NAS1149C0332 Purchased

No

\*AN960C10I \*

washer

AN4-4A

Purchased

No

250

Each

127.0000

2

2

\*AN4-4A \*

Bolt

Location

Loc Qty

Loc Code

FP001

10

114615 ✓

10

ST355

117

114615

17

120187

100

250

Each

54.0000

6

6

NAS1611-012 Purchased

No

\*NAS1611-012\*

O-RING

Location

Loc Qty

Loc Code

FP001

54

113845 ✓

10

118384 ✓

44

\*\*

\*\*

\*\*

\*\*

2 m-l 12/03/22

28 m-l 12/03/22

m-l 12/03/22

2

m-l 12/03/22

6

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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# Picklist Print

February-07-12 3:08:15 PM

Page 8

Work Order ID: 79941

Parent Item: D117-762-041

Parent Item Name: Replacement Skidtube

\*79941\*

\*D117-762-041\*

Start Date: 07/02/2012

Required Date: 21/02/2012

Start Qty: 1.00

Required Qty: 1.00

NAS1611-015

Purchased

No

250

Each

119.0000

2

2

**\*NAS1611-015\***

O-RING

\*\*

M-1 12/03/22

Location

Loc Qty

Loc Code

FP001

119

115101

85

116081 ✓

34

NAS1611-016

Purchased

No

250

Each

72.0000

2

2

**\*NAS1611-016\***

O-RING

\*\*

M-1 12/03/22

Location

Loc Qty

Loc Code

FP001

72

112492

46

113524 ✓

26

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

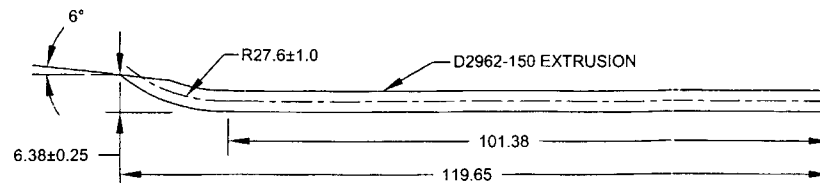


# PARTS LIST FOR D3582-041 SKIDTUBE ASSEMBLY

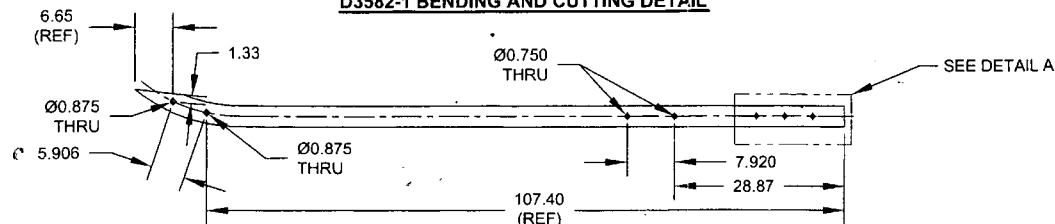
Qty	Part Number	Description
X	D3582-041	SKIDTUBE ASSEMBLY
1	D2962-150	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2971	CROSS BOLT SPACER
2	D2973	CROSS BOLT SPACER
2	D3492-049	PLUG ASSEMBLY
2	D3492-051	PLUG ASSEMBLY
6	D3492-053	PLUG ASSEMBLY
1	D3508-3	WEARPLATE
1	D3508-9	WEARPLATE
1	D3508-11	WEARPLATE
1	D3508-13	WEARPLATE
1	D3558-3	GASKET
1	D3558-9	GASKET
1	D3558-11	GASKET
1	D3558-13	GASKET
1	D3584-1	WEB
3	D3662-1	CROSS BOLT SPACER
1	D3662-3	CROSS BOLT SPACER
36	AELS-1032-130	INSERT
2	ALS7-428-165	INSERT
28	AN3C4A	BOLT
2	AN3-5A	BOLT
2	AN4-4A	BOLT
28	AN960C10L	WASHER
2	AN960JD10L	WASHER
2	AN960JD416L	WASHER

## GENERAL NOTES:

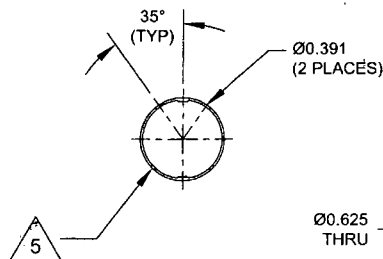
- ALL DIMENSIONS ARE IN INCHES
- TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- WELDING TO BE DONE PER DART QSI 004
- INSERT D3584-1 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- USE DART DRILL TEMPLATE DT8900 TO LOCATE AND DRILL Ø0.297 HOLES (36 PLACES) FOR WEARSHOE INSERTS. INSTALL AELS-1032-130 PER SECTION G-G (36 PLACES) AFTER FINISH. SEAL WEARPLATE BOLTS WITH SIKAFLEX-241/-291.
- DO NOT INSTALL AN3C4A BOLTS AND AN960C10L WASHERS IN INDICATED LOCATIONS.
- FINISH:
  - CHEMICAL CONVERSION COAT PER DART QSI 005 4.1 PRIOR TO INSERTING D3584-1 WEB.
  - POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.1) PER DART QSI 005 4.3.
  - ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART QSI 005 4.4



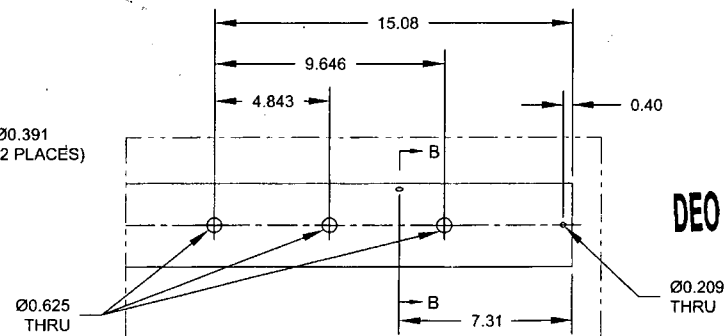
D3582-1 BENDING AND CUTTING DETAIL



D3582-1 DRILLING DETAIL



SECTION B-B  
SCALE 1:5



DETAIL A  
SCALE 1:5

RELEASED  
07.11.2007

A	NEW ISSUE	PH	07.06.08
REV.	DESCRIPTION	BY	DATE
DESIGN	PH	DART AEROSPACE USA, INC PORT HADLOCK, WA	
DRAWN	PH		
CHECKED	PH	DRAWING NO.	REV. A
MFG. APPR.	PH	D3582	SHEET 1 OF 2
APPROVED	PH	TITLE	SCALE
DE APPR.	PH	BK 117 SKIDTUBE ASSEMBLY	1:20
DATE	07.06.08	COPYRIGHT © 2007 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMBINED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC	

79941 M.C.J  
12/02/07

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

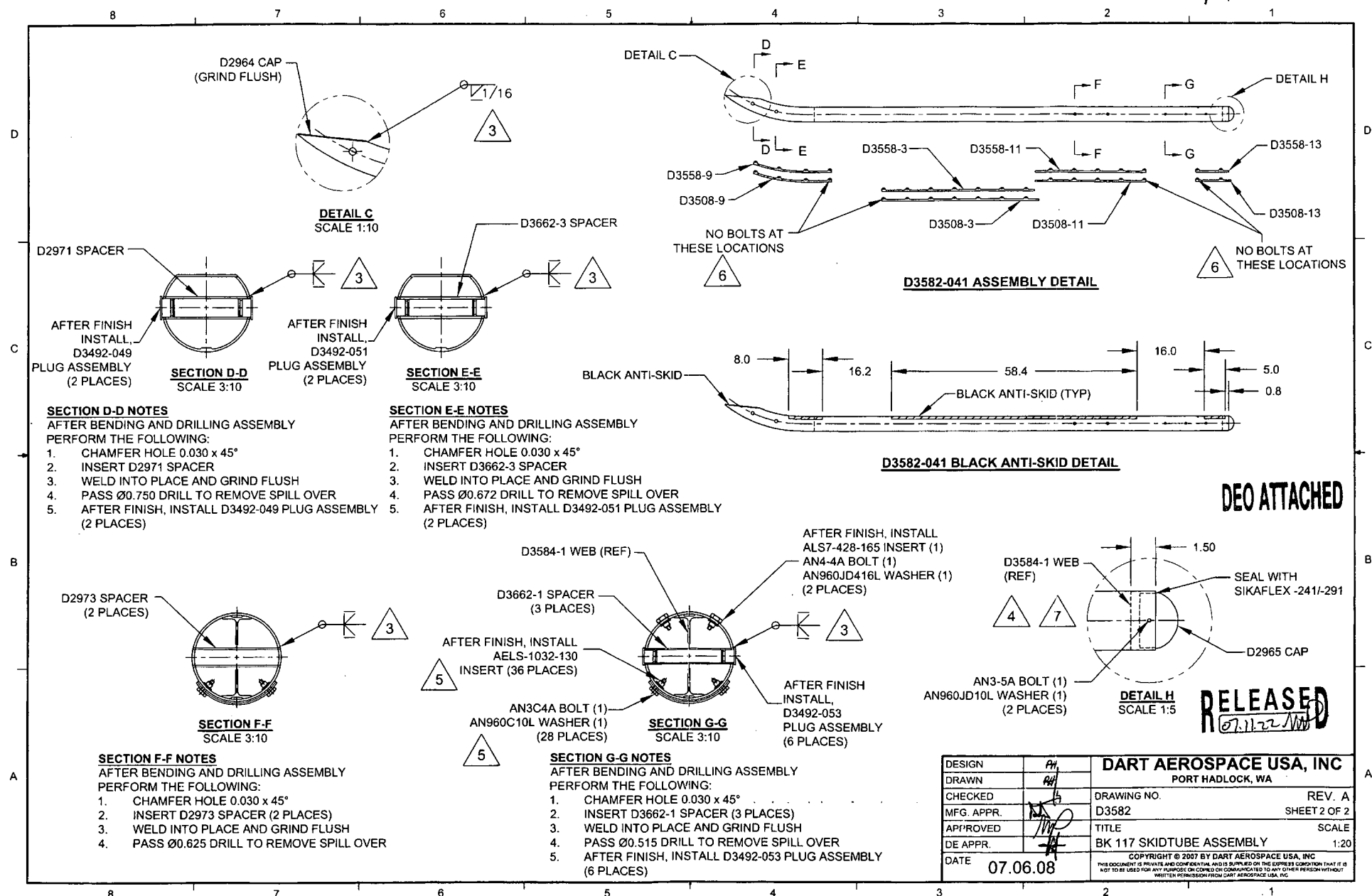
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

799411



DEO ATTACHED

RELEASED

DESIGN	PH	<b>DART AEROSPACE USA, INC</b>	
DRAWN	PH	PORT HADLOCK, WA	
CHECKED	h	DRAWING NO.	REV. A
MFG. APPR.		D3582	SHEET 2 OF 2
APPROVED		TITLE	SCALE
DE APPR.		BK 117 SKIDTUBE ASSEMBLY	1:20
DATE	07.06.08	COPYRIGHT © 2007 BY DART AEROSPACE USA, INC THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSES OR COMED OR COMMERCIALIZED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE USA, INC	

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

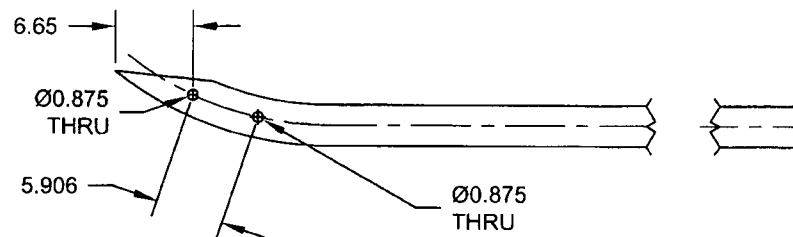
**NOTE:** Date & initial all entries

79941

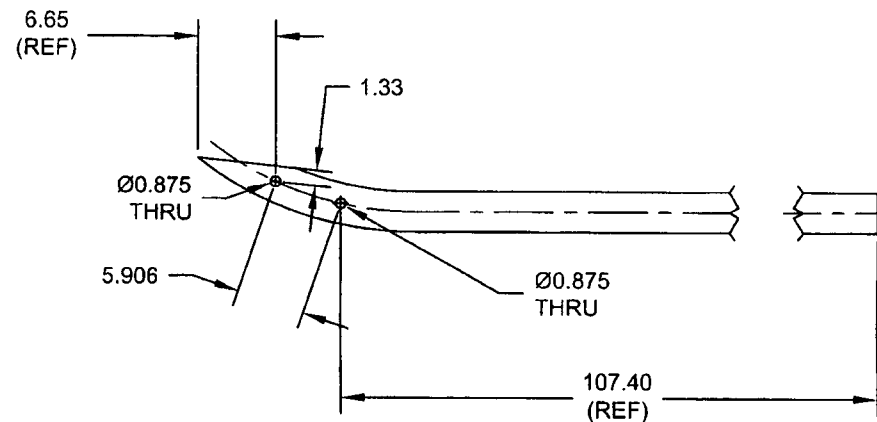
DRAWING NO. D3582	TITLE BK 117 SKIDTUBE ASSEMBLY	REV. A	DART AEROSPACE USA, INC ENGINEERING ORDER		D.E.O. NO. D3582-A-1	SHEET NO. SHEET 1 OF 1	SCALE NTS
DRAWN <i>PH</i>	CHECKED <i>[Signature]</i>	MFG. APPR. <i>[Signature]</i>	APPROVED <i>[Signature]</i>		DE APPR. <i>[Signature]</i>		
DATE 09.04.06	DATE 04.04.06	DATE 09.04.06	DATE 12/04/06		DATE 09.04.06		

FOR EASE OF MANUFACTURE AND TO ENSURE THE FIT OF BRISTOL WIRESTRIKE SKID GEAR DEFLECTOR:  
UPDATE DIMENSIONING OF 2 FWD HOLES ON SHEET 1 AS SHOWN

IS:



WAS:



**RELEASED**  
09/04/22 *[Signature]*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

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